

**REMARKS**

Claims 1 through 4 and 6 are pending in this application. Claim 1 has been amended consistent with the Examiner's courteous suggestion appearing in the third enumerated paragraph on page 2 of the June 18, 2003 Office Action. As apparently appreciated by the Examiner, the present Amendment does not generate any new matter issue or any new issue for that matter, but merely addresses a formalistic issue. Accordingly, entry of the present Amendment and Remarks, and favorable consideration, are respectfully solicited pursuant to the provisions of 37 C.F.R. §1.116.

**Claims 1 through 6 were rejected under 35 U.S.C. §103 for obviousness predicted upon Shinohara in view of Sakurai and Fu et al.**

In the statement of the rejection, the Examiner again **admitted** that Shinohara does not disclose the **formation or removal** of a hardened layer on the surface of the polyimide film. Nevertheless, the Examiner concluded that the claimed invention would have been obvious. This rejection is traversed as factually and legally erroneous.

**There is no Inherency**

In the responsive Amendment submitted April 8, 2003, Applicants stressed the Examiner did not factually establish the requisite inherency, which requires certainty and art-recognition. *Elan Pharmaceuticals Inc. v. Mayo Foundation*, \_\_\_ F.3d \_\_\_, 64 USPQ2d 1292 (Fed. Cir. 2002); *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002). In the sixth enumerated section commencing at page 5 of the June 18, 2003 Office Action, the Examiner asserts that the

use of oxygen ashing by Shinohara would necessarily remove the hardened surface of the polyimide film. The Examiner is hereby requested to **specifically identify** which particular etching parameters disclosed by Shinohara et al. would **necessarily** result in the formation of a hardened polyimide film.

The Examiner is further requested to identify which specific oxygen ashing parameters disclosed by Shinohara et al. would **necessarily** result in removal of any portion of the upper surface of the polyimide film, **assuming** (improperly so) that a hardened polyimide film was formed in the first place.

### **The "Routine Experimentation" Rubric**

Assuming the Examiner overcomes the above hurdles, there remains a **fatal gap** in the Examiner's analysis. That gap is that neither Shinohara or Sakurai discloses or suggests that the amount of polyimide removed during oxygen ashing is an art-recognized result effective variable. This being the case, it is **legally erroneous** for the Examiner to say that one having ordinary skill in the art would have been led to remove any particular amount of the upper surface of the polyimide film based on "routine experimentation" (first full paragraph on page 6 of the June 18, 2003 Office Action). *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *In re Yates*, 663 F.2d 1054, 211 USPQ 1149 (CCPA 1981); *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

### **Art Recognition**

As discussed in the first full paragraph on page 4 of the April 8, 2003 responsive Amendment, the Examiner recognizes that art recognition is a requirement for inherency.

Shinohara of course is **silent** as to the formation of a hardened upper surface of the polyimide layer much less removal thereof. The Examiner again turns to Fu et al. But Fu et al. neither disclose nor suggest the formation of a hardened film on a photosensitive polyimide layer. The Examiner can not hop, skip and jump among the references and somehow arrive at the claimed invention. This is a judicially forbidden approach which is based on a retrospective analysis of the claimed invention in light of Applicant's disclosure--not an assessment for the prior art itself. *In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (Fed. Cir. 1989).

Applicant can not overemphasize the fact that the applied prior art neither discloses nor suggests that the amount of polyimide removal during oxygen ashing is an art-recognized result effective variable.

#### **Denial of Due Process of Law**

In the ultimate sentence of the first full paragraph on page 6 of the June 18, 2003 Office Action, the Examiner says:

In addition, the originally specification fails to demonstrate the criticality of the removal thickness.

**The Examiner's approach is legally erroneous in denying Applicants due process of law.** There is no requirement upon Applicant to demonstrate criticality, or even present an argument, until such time as the Examiner establishes a prima facie basis to deny patentability to the claimed invention. *In re Deuel*, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995); *In re Rijckaert*, supra; *In re Bell*, 991 F.2d 781, 26 USPQ2d 1529 (Fed. Cir. 1993); *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The Examiner did **not** establish a prima facie basis to deny patentability to the claimed

invention. Ergo, there is no requirement for Applicants to demonstrate the criticality of any claim limitation.

### **Indicium of Nonobviousness**

It is well settled that the problem addressed and solved by a claimed invention must be given consideration resolving the ultimate legal conclusion of obviousness under 35 U.S.C. §103. *North American Vaccine, Inc. v. American Cyanamid Co.*, 7 F.3d 1571, 28 USPQ2d 1333 (Fed. Cir. 1993); *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 15 USPQ2d 1321 (Fed. Cir. 1990); *In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (Fed. Cir. 1989); *In re Nomiya*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975). The present invention stems from the recognition that a hardened photoresist layer is formed which adversely impacts dimensionally integrity (page 6 of the written description of the specification, lines 10 through 20). This problem is not even a blip on the radar screen of Shinohara. Indeed, Shinohara addresses a **different problem** from that addressed by the claimed invention. Shinohara is concerned with a problem attendant upon oxygen ashing which disassociates the imide coupling thereby reducing adhesion of the polyimide to the mold resin. On the other hand, the present invention is primarily concerned with dimensional accuracy and, in order to achieve that objective, forms an **undesirable** hard polyimide film which is then **purposely removed** by oxygen ashing. On the other hand, oxygen ashing is employed by Shinohara is for the purpose of **reducing fluorine** contaminants.

Accordingly, the problem addressed and solved by the claimed invention merits consideration as **potent indicium of nonobviousness**.

### Conclusion

Based upon the foregoing, Applicants submit that a prima facie basis to deny patentability to the claimed invention under 35 U.S.C. §103 has not been established. Applicants submit that the Examiner's attempt to invoke the doctrine of inherency is misplaced. *Crown Operations International Ltd. v. Solutia Inc.*, *supra*; *Finnegan Corp. v. ITC*, *supra*; *In re Robertson*, *supra*. Moreover, upon giving due consideration to the problem addressed and solved by the claimed invention, the conclusion appears inescapable that one having ordinary skill in the art would **not** have found the claimed invention **as a whole** obvious within the meaning of 35 U.S.C. §103. *Jones v. Hardy*, 727 F.2d 1524, 220 USPQ 1021 (Fed. Cir. 1984).

Applicants, therefore, submit that the imposed rejection of claims 1 through 6 under 35 U.S.C. §103 for obviousness predicated upon Shinohara in view of Sakurfai and Fu et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

It should, therefore, be apparent that the imposed objection and rejection have been overcome, and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

09/910,824

Respectfully submitted,

MCDERMOTT, WILL & EMERY

A handwritten signature in dark ink, appearing to read 'A. J. Steiner', is written over the printed name.

Arthur J. Steiner

Registration No. 26,106

600 13<sup>th</sup> Street, N.W.  
Washington, DC 20005-3096  
(202) 756-8000 AJS:ntb  
Facsimile: (202) 756-8087  
**Date: September 16, 2003**